The Journal OF THE South Carolina Medical Association

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CONDENSED
MILK
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Established 1857
NEW YORK.

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Are puny, starved, insipid. So we discard them in making Quaker Oats.

Some Oats

Are big and plump—rich in that wondrous flavor Nature gives to oats.

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That is why Quaker Oats rule the world over. In a hundred nations folks consume a billion dishes yearly.

And that is why folks should be sure to get them. They cost no extra price.

10c and 25c Per Package
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The Flavory Flakes

(1595)

The Journal OF THE South Carolina Medical Association

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EDITORIAL

SOUTH CAROLINA DOCTORS READY FOR SERVICE.

Quite a number of the members of the State Association are ready for the call to service. We note among them the following:

Dr. F. D. Rogers,
Dr. J. R. Boling,
Dr. B. H. Baggott,
Dr. M. H. Wyman,
Dr. R. B. Durham,
Dr. Isadore Schayer,
Dr. D. W. Register,
Dr. J. A. Hayne,
Dr. F. A. Coward,
Dr. La Bruce Ward,
Dr. Lindsay Peters,

all of Columbia.

Drs. W. C. Marrett and B. F. Sloan, of Oconee, Dr. C. B. Earle retiring President of the South Carolina Medical Association has received his commission. Dr. S. C. Baker, Chairman of Council has been named by the Governor Surgeon General of the National Guard. Dr. E. A. Hines, Secretary-Editor of the Association has been appointed by the President a member of the District Exemption Board for the Western Federal District and Dr. Robt. Wilson Dean of the Medical College of the State of South Carolina has been appointed a member of the District Exemption Board for the Eastern Federal District.

From Newberry the names of Drs. F. D. Mower, T. B. Wood and Jno. B. Setzler have been reported as Commissioned in the Medical Officers Reserve Corps.

Dr. Frank Parker, of Charleston, and a number of others have already been called for duty.

All honor to these men and many more who will now rapidly come forward we believe and send in their applications for Commissions.

PHYSICIANS IN SOUTH CAROLINA APPOINTED ON EXEMPTION BOARDS.

Abbeville—Dr. G. A. Neuffer, Dr. C. C. Gambrell.
Aiken—Dr. H. H. Wyman.
Anderson—No. 1. Dr. B. A. Henry, No. 2. Dr. W. A. Tripp, Dr. Frank Lander, N. 3. Dr. A. B. Weathersbee and Dr. H. M. Babb.
Bamberg—Dr. J. J. Cleckley.
Barnwell—Dr. D. K. Briggs.
Beaufort—Dr. M. G. Elliott.
Berkley—Dr. R. Y. Dwight.
Calhoun—Dr. T. H. Dreher and Dr. J. K. Fairey.
Charleston—Dr. E. H. Barnwell.
City of Charleston—Division No. 1. Dr. C. W. Kollock.
Division No. 2. Dr. G. McF. Mood.
Cherokee—Dr. S. B. Sherard.
Chester—Dr. H. E. McConnell.
Chesterfield—Dr. T. E. Wannamaker, Jr.
Clarendon—Dr. W. M. Brockington.
Colleton—Dr. L. M. Stokes.
Darlington—Dr. William Egleston.
Dillon—Dr. D. M. Michaux.
Dorchester—Dr. J. B. Johnston.
Edgefield—Dr. R. A. Marsh.
Fairfield—Dr. Samuel Lindsey.
Florence—Dr. E. P. Covington.
Georgetown—Dr. W. M. Gaillard.
Greenville—N. 1. Dr. B. F. Goodlett, No. 2. Dr. R. C. Bruce.
Greenville No. 3. Dr. H. L. Shaw.
Greenwood—Dr. George P. Neel.
Hampton—Dr. J. N. Campbelle.
Horry—Dr. H. H. Burroughs.
Jasper—Dr. W. B. Ryan.
Kershaw—Dr. J. W. Corbett.
Lancaster—Dr. S. L. Allen.
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Lee—Dr. R. O. McCutcheon.
Lexington—Dr. P. C. Timmerman.
McCormick—Dr. M. W. Cheatham.
Marion—Dr. Z. G. Smith.
Marlboro—Dr. J. F. Kinney.
Newberry—Dr. J. M. Kibler.
Oconee—Dr. E. A. Hines.
Orangeburg—Dr. L. C. Sheeut.
Pickens—Dr. J. L. Valley.
Richland—Dr. J. W. Wessinger.
City of Columbia—Dr. J. Heyward Gibbes.
Saluda—Dr. D. B. Frontis.
Spartanburg—No. 1. Dr. W. H. Chapman, No. 2. Dr. W. B. Patton.
No. 3, Dr. Jas. L. Jeffries.
Sumter—Dr. J. A. Mood.
Union—Dr. R. R. Berry.
Williamsburg—Dr. E. T. Kelly.
York—No. 1. Dr. W. W. Fennell, No. 2. Dr. E. W. Pressley.

ORIGINAL ARTICLES

MEDICAL EXAMINATION OF THE SCHOOL CHILDREN OF THE CITY OF FLORENCE, S. C.

By M. R. Mobley, M. D., Health Officer.

PERIODICAL examination of school children by physicians has come to be a recognized public function in all civilized nations. Medical inspection had its origin in the United States in Boston in 1894, and later in 1906 it was made compulsory throughout Massachusetts. In 1907 the British Parliament made it compulsory throughout England and Wales; while in Japan it had become general much earlier than this. In Europe the medical inspection of schools has been carried much farther than in this country, and begins with inspection of all plans for new school buildings.

Th original purpose of medical inspection in schools was to safe-guard the public health, and this is still one of its primary functions. However it has another purpose which concern only indirectly the public welfare, but affecting directly the welfare of the individual child, both for the present and for the future, and this is to "ascertain whether the child is suffering from defective eye sight or hearing, or from any other disability or defect tending to prevent his receiving the full benefit of his school work."

The physical well being of school children has been a matter of too much indifference in the past. Heretofore educators and parents in general have labored under the impression that all children had to have the common diseases of childhood. Mouth breathing has been looked upon as a habit. Near-sightedness has been excused upon the ground of poor light, or possibly a habit which the child has formed.

All children have been placed on an equal footing, regardless of their mental or physical condition, and he who could not keep the pace on account of some physical defect, which if detected, could in all probability have been remedied, has been as unquestioningly left behind as the child who loses his place in school on account of illness. A child's standing in school depends as much on physical qualities and conditions as on moral and intellectual ones.

When the medical inspection of the school children of the City of Florence, S. C., was first contemplated, all physicians and dentists in the city were interviewed and all agreed to give their services to the health department free of charge.

The examinations were conducted in the grammar schools of this city, two of them being white schools and one colored school. Suitable clinic rooms were fitted up at each of these schools, with a retained nurse in attendance at each of the clinics. A weekly schedule of clinics was made and sent to each physician and dentist who assisted in the work.

The physical examination is grouped under three divisions; a general examination; and a dental examination, and an examination of the eye, ear, nose and throat. The general examination was made by a

general practitioner, the special examination in the majority of instances was made by a specialist in eye, ear, nose and throat. The examiners' findings were recorded by a secretary on the following card:

Department of Public Health—
Florence, South Carolina
MEDICAL INSPECTION OF
SCHOOL CHILDREN.

Name .....St. Address ....Date..
School ..Age ..Sex..Color..Grade..

Clinical Examination.

General Appearance .....
Physical .....
a. Well nourished?.....
b. Anaemic .....
Mental .....
a. Active.....b. Sluggish.
Condition of Skin .....
a. Scabies?.....d. Impetigo?....
b. Ring Worm?.....e. Pediculosis?
c. Eczema? .....
Vaccinated .....
Glandular Condition .....
.....
Any Deformity .....
Lungs .....
Heart and Vessels .....
Evidence of Contagious Diseases....
a. Varicella.....e. Measles.....
b. Scalatina.....f. Mumps.....
c. Variola.....g. Pertussis....
d. Diphtheria .....
Other Diseases .....
.....
Remarks .....
.....
.....
.....
.....
.....

Dental Examination.

Hygiene .....
A. Tooth Brush Used
.....
b. Dental Attention .....
.....
Occlusion .....
a. Malocclusion .....
b. Maposition .....
.....
.....
Dental Examination .....
Caries .....
a. Deciduous Teeth .....
b. Permanent Teeth .....
c. Odontalgia .....
d. Exposed Pulps .....
Abscesses .....
a. Chronic .....
b. Acute .....
c. Putrescent Pulps .....
Associated Disorders .....
.....
.....
Remarks .....
.....
.....
.....
.....
R. E.....
Eyes-Vision (L. E.....
Lids .....
Disease .....
.....
R. E.....
Ear Hearing (L. E. .....
Pain .....
Discharge .....
Odor .....
Disease .....
Nose:
Cold .....
Catarrh .....
Deformities .....
Throat:
Mouth Breathing .....
Tonsils .....
Adenoids .....
Remarks .....
.....
.....
.....
.....
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Medical Examination of School Children---Flo

	PARK SCHOOL																CENTRAL SCHOOL													
	1st.	% D.	2nd.	% D.	3rd.	% D.	4th.	% D.	5th.	% D.	6th.	% D.	7th.	% D.	Total Exm.	% Defts.	1st.	% D.	2nd.	% D.	3rd.	% D.	4th.	% D.	5th.	% D.	6th.	% D.	7th.	%
No. Exm. and % Defective	96		74		65		62		27		45		46		415		105		102		108		80		68		45		64	
Anaemic	10	9.6	19	25.6	22	33.8	4	6.4	2	7.4	5	11.1	4	8.7	66	15.9	14	13.3	30	29.4	6	5.5	18	22.5	5	7.3	10	22.2	17	26
Skin Diseases	1	1	4	5.4	1	1.5			1	3.7	2	4.4	2	4.3	11	2.6							3	3.7	1	1.4			5	7
Not Vaccinated	24	25	25	33.7	25	38.4	20	32.5	2	7.4	10	22.2	6	13	112	27.	27	25.7	46	45.	23	21.3	10	12.6	15	22.	12	26.6	16	25
Enlarged Anterior Cervical Glands	12	12.5	3	4.	43	66.1	12	19.3					3	6.5	73	17.5	10	9.5	22	21.5	4	3.7	4	5.	28	41.1	12	26.6	26	40
Enlarged Posterior Cervical Glands	13	13.5	4	5.4	43	66.1	11	17.7					2	4.3	73	17.5	22	20.9	18	17.6	5	4.6	6	7.5	24	35.3	6	13.3	8	12
Enlarged Thypoid Glands							1	1.6					3	6.5	4	.96													1	1
No Tooth Brush Used	64	66.6	31	41.8	27	41.5	10	16.1	6	22.2	4	8.8	1	2.1	143	34.7	38	36.1	31	30.3	12	11.1	2	2.5	4	6.	2	4.4	2	3.
Misplaced Teeth	28	29	9	11.8	16	24.6	9	14.5	2	7.4	8	17.7	8	17.3	80	19.2	16	15.2	16	15.6	21	19.4	16	20.	10	14.7	9	20.	11	17
Cavities in Temporary Teeth	68	70.8	49	64.4	40	61.5	20	32.5	8	29.6	8	17.7	5	10.8	198	47.7	84	80.	77	75.4	70	64.8	43	53.7	25	36.7	6	13.3	2	3
Cavities in Permanent Teeth	21	21.9	15	20.2	27	41.5	30	48.3	14	51.8	20	44.4	29	63.	156	37.5	13	12.3	23	22.5	37	34.2	28	35.	42	61.7	25	55.5	37	57
Tooth Ache	13	13.5	8	10.8	9	13.8	8	12.9			2	4.4	2	4.3	42	10.	34	32.3	36	35.2	14	12.9	7	8.7	1	1.4	1	2.2	11	17
Dental Abscess	7	7.2	5	6.7					1	2.2					13	3.	23	21.9	21	20.5	9	8.3			1	1.4	5	11.1	2	3.
Defective Vision	13	13.5	5	6.7	2	3.	5	8.	1	3.7	3	6.6	6	13.	35	8.4	15	14.2	43	42.1	48	44.4	38	47.5	23	33.8	20	44.4	10	15
Defective Hearing	19	20					3	4.8	3	11.1	10	22.2	3	6.5	38	9.	7	6.6			6	5.5	13	16.2	8	12.			4	6.
Deflected Nasal Septum	2	2	1	1.3									1	2.1	4	.96					1	.92					1	2.2		
Mouth Breathing	17	17.7	13	17.5	21	32.3	11	17.7	4	14.8	7	15.5	2	4.3	75	18.	8	7.6	7	6.8	10	9.2	11	13.7	9	13.2	4	8.8	4	6.
Enlarged Tonsils	66	68.7	47	63.5	47	72.3	45	72.5	12	44.4	19	12.2	16	34.7	252	60.7	57	54.2	48	47.	55	50.9	45	56.2	37	54.4	21	46.6	26	40
Adenoids	61	63.5	38	51.3	33	50.7	35	56.4	6	22.2	13	28.8	16	34.7	202	48.6	50	47.6	46	45.	21	19.4	32	40.	21	30.8	10	22.2	4	
Chronic Pharyngitis			1	1.3	11	16.9	11	17.7	15	55.5	14	31.1	2	43	54	13.	3	2.8	4	3.9	19	17.5	26	32.5	17	25.	7	15.5	1	1
Crypt Tonsils	4	4.2	2	2.7	1	1.5	3	4.8	1	3.7	5	11.1	15	32.6	31	7.4	5	4.7	10	9.8	6	5.5	9	11.2	5	7.3	10	22.2	3	4
Granulated Lids	5	5.2	1	1.3	8	12.2	9	1.45	11	41.1	6	13.3	2	4.3	42	10.	2	1.9	6	5.8	10	9.2	19	23.7	32	47.	9	20.	6	9
Conjunctivitis	11	11.4	6	8.1	9	13.8	7	11.2	2	7.4	3	6.6	8	17.3	46	11.	6	5.7	7	6.8	12	11.1	17	21.2	31	45.5	19	42.2	9	14
No. Needing Treatment	95	98.9	73	97.3	64	98.4	60	96.7	26	96.2	36	80.	43	93.4	397	95.6	99	94.2	94	92.1	93	86.1	76	95.	65	94.1	38	84.4	45	70

n--Florence City Schools--Florence South Carolina

OOL							HIGH SCHOOL									WILSON SCHOOL																				All Schools	
6th.		% D.	7th.		% D.	Total Exm.	% Deft.	8th.		% D.	9th.		% D.	10th.		% D.	11th.		% D.	Total Exm.	% Deft.	1st.		% D.	2nd.		% D.	3rd.		% D.	4th.		% D.	5th.		% D.	6th.		% D.	7th.		% D.	8th.		% D.	9th.		% D.	10th.		% D.	Total Exm.	% Deft.	Total Exm.	% Deft.
	45			64		572		68			59			61			33			221		580			196			100			83			79			46			33			17			16			12			1162		2370	
3	10	22.2	17	26.5	100	17.4	8	11.7	9	15.2	4	6.5	3	9.	24	10.8	25	4.3	34	17.3	7	7.	9	10.8	13	16.4	5	10.8	3	9	1	5.8									87	7.4	277	11.6
4			5	7.8	9	1.5	2	3.					1	3.	3	1.3	4	.69	4	2.	2	2.							1	3.	1	5.8			1	8.3	13	1.1	36	1.5
	12	26.6	16	25.	149	26.	7	10.3	2	3.3	2	3.2			11	5.																											272	11.4
1	12	26.6	26	40.6	106	18.5	13	19.1	3	5.			4	12.1	20	9.	375	64.6	52	26.	31	31.	11	13.2	5	6.3	5	10.8	3	9.	1	5.8					482	41.4	681	28.7
3	6	13.3	8	12.5	89	15.5	4	6.					1	3.	5	2.2	375	64.6	52	26.	31	31.	11	13.2	5	6.3	5	10.8	3	9.	1	5.8					482	41.4	649	27.3
			1	1.5	1	.17	1	1.5	1	1.7	4	6.5			6	2.6																											11	.46
	2	4.4	2	3.	91	15.9											532	91.7	88	40.	55	55.	20	24.	17	21.5	4	8.6	2	6.	8	17.6	1	6.2	1	8.3	723	62.2	957	40.3
7	9	20.	11	17.2	99	17.3	6	8.8	10	17.	11	18.	4	12.1	31	14.	438	75.5	157	80.1	78	78.	65	78.3	62	78.4	41	89.1	31	93.9	14	82.2	14	87.5	4	33.3	904	77.8	1114	47.
7	6	13.3	2	3.	307	53.6	1	1.5							1	.45	376	64.8	81	46.4	49	49.	17	20.4	7	8.8	3	6.5	13	39.3	5	28.2	6	37.5	4	33.3	571	49.1	1077	45.4
7	25	55.5	37	57.8	205	35.8	32	47.	19	32.1	29	47.5	15	45.4	95	43.	27	4.6	61	31.1	22	22.	52	62.6	61	77.2	38	82.4	19	57.5	12	70.5	11	68.7	9	75.	312	26.8	768	32.4
4	1	2.2	11	17.2	104	18.1	1	1.5					1	3.	2	.9	184	31.7	77	39.2	35	35.	38	45.7	41	51.8	23	50.	15	45.4	11	64.7	3	18.7	8	66.6	435	37.4	583	24.6
4	5	11.1	2	3.	61	10.6	3	4.4	1	1.7	1	1.6	1	3.	6	2.6	14	2.4	24	12.2	5	5.	11	13.2	16	20.2	6	13.	4	12.	6	35.2	2	12.5	6	50	94	8.	174	7.3
8	20	44.4	10	15.6	197	34.4	12	17.6	18	30.5	23	37.7	12	36.3	65	29.4	10	1.7	35	17.8	6	5.	14	16.8	14	17.7	7	15.2	2	6.	4	22.2	2	12.5	6	50	100	8.6	397	16.7
			4	6.	38	6.6							1	1.6	3	9.	4	1.8																														80	3.3
	1	2.2			2	.34							2	3.2	2	6.	4	1.8																												10	42.
2	4	8.8	4	6.	53	9.2			3	5.	2	3.2			5	2.2	28	4.8	22	11.2	4	4.	5	6.	6	7.2	2	4.3	5	15.1	1	5.8			1	8.3	74	9.2	207	8.7
4	21	46.6	26	40.6	289	50.5	25	36.6	20	34.	14	2.3	18	54.5	77	34.8	41	7.	20	10.2	7	7.	6	7.2	18	22.7	3	6.5	7	21.2	3	17.6			2	16.6	107	9.2	725	30.5
8	10	22.2	4	6.	184	32.1	10	14.7	3	5.	2	3.2	7	21.2	22	10.	25	4.3	22	11.2	4	4.	3	3.6	6	7.5	2	4.3	6	18.	1	5.8			1	8.3	70	6.	478	20.1
	7	15.5	1	1.5	77	13.4	1	1.5	6	10.	14	23.	4	12.	25	11.3																											156	6.5
3	10	22.2	3	4.6	48	8.4	6	8.8	13	22.	10	31.1	1	3.	39	17.6	120	20.7	39	20.	33	33.	11	13.2	2	2.5	4	8.6	3	9.	2	11.1					214	18.4	332	14.
	9	20.	6	9.3	84	14.6	6	8.8	11	18.6	26	42.6	3	9.	46	20.8																											172	7.2
5	19	42.2	9	14.	101	17.6	10	14.7	20	34.	20	47.5	11	33.3	70	31.6																											217	9.1
1	38	84.4	45	70.3	509	89.	38	55.8	29	50.	42	70.	25	75.7	134	60.6	496	85.5	172	87.7	83	83.	74	89.1	71	89.8	41	89.1	25	75.7	14	82.2	13	81.2	11	91.6	1000	88.	2040	8.6

CITY OF FLORENCE—HEALTH DEPARTMENT,
M. R. MOBLEY, M. D., Health Officer.

.....
.....
.....
.....
.....

Teacher .....

M. R. Mobley, M. D., Health Officer.

After the examination of a grade was completed, a notification card was sent to each parent whose child was found defective. The following is the form of the notification card:

Department of Public Realth—
Florence, S. C.
MEDICAL INSPECTION OF SCHOOL CHILDREN.

.....191....

Physical examination shows that..... attending Public School, needs attention for the condition of .....
.....
and I advise that you place..... under the care of a..... as early as possible, so that..... will be in better physical condition to continue school work.

Respectfully,
M. R. Mobley, M. D.
Health Officer.

A record of each child found defective was also filed at the superintendent's office at each of the schools;

Florence City Schools.
Medical Examination of School Children.

.....191....

Report on .....St....
School .....Grade.... Teacher.....
Defective condition found as follows
.....
Treatment advised .....191..
Treatment obtained .....191..
Remarks .....
.....

W. L. Brooker,
Superintendent

The information contained on this card is of the utmost value in following up the medical inspection. The child is required to report when any existing defect is remedied and if at a later date the teacher notes any marked improvement in the childs' mental or physical condition the improvement is noted on the card. The value of a school nurse in this "follow-up" work cannot be overestimated. Her duties are manifold. In the school itself she assists the physician in his regular examinations. She attends the minor ailments, dresses cuts and bruises. Most important of all, however, she is in a position to detect and exclude from school all incipient cases of contagious diseases. One of her chief duties is to establish communication with the home and secure friendly co-operation of the parents.

During our recent inspection of the school children of this city, practically 100 per cent of the children enrolled were examined. The following chart graphically illustrates the results obtained:

CHART—

Of the two thousand three hundred and seventy children examined, two thousand and forty or 86 per cent. were found defective. One is appalled by such a large percentage of defects in children supposed to be normal and healthy. Of course any defect, however slight, such as one decayed tooth, places the child in the defective column. In comparison with the results obtained in other cities, the percentage of defectives in Florence is rather high. This can possibly be accounted for by the fact that medical inspection in this city is in its infancy. A great number of defects have been corrected, and at our next annual inspection we hope to see a great increase in the percentage of normal children. The great majority of defects were found among the younger children:

in fact the seeming neglect of the younger children was somewhat amazing. A possible explanation of this fact is that the parents have never been instructed in regard to these defective conditions, and are therefore in ignorance of their child's physical condition. The solution of the problem lies in educating the parents up to the necessity of keeping their children in as near perfect physical condition as possible, and giving them a chance of competing on an equal basis with the "exceptionally forward" child. It would hardly be an exaggeration to say that the mental efficiency of the school children of this and other cities is decreased from 20 to 30 per cent. through the presence of defects, the great majority of which can be remedied.

Seven hundred and eight-one children or 33 per cent. of the total enrollment of the city schools are in the first grade, while one hundred and six, or only 4-1/2 per cent. are enrolled in the highest grades, the tenth and eleventh. What has become of the large bulk of children who enrolled in the first grades? Have they all stopped on account of having to work? This is unbelievable. Possibly they have had some physical defect which if known, could have been remedied; and this defective condition has so reduced their mental efficiency that they have become discouraged in the unequal race, and have fallen by the wayside. These children will have to go through life uneducated because of the lack of sufficient attention during the first years of their school life. Such seeming parental neglect is rarely due to lack of parental affection, but to ignorance. Familiarity with certain diseases makes them easily tolerable, while in some homes the immediate necessities of life tax the thought and efforts of the parents, and the less pressing give way to the more pressing duties.

Two hundred and seventy-seven, or 11.5 per cent. of the children were Anaemic. The underlying cause of this anaemia, in the majority of instances, was enlarged and diseased tonsils.

Enlargement of the glands of the neck seems to be almost a normal condition in the young children. In the older ones the enlargement was due to diseased tonsils.

The neglect of the teeth in the younger and in a few of the older children was very evident, nine hundred and fifty-seven, or 40 per cent. of those examined did not use a tooth brush, while one thousand eight hundred and forty-five, or 78 per cent. had decayed teeth, either in their temporary or permanent teeth. Unclean mouths promote the growth of disease organisms, and cavities are the centers of infection. Pus from diseased teeth interferes with digestion, lowers vitality and renders mental effort difficult.

Three hundred and ninety-seven, or 16.5 per cent had defective vision in one or both eyes. Among the many defects and disabilities which interfere with school work, this is the most general and usually the most serious. Numerous cases were found in which serious defects have existed for years, unknown to teachers, parents, or to the children themselves. A large number of the cases of conjunctivities and granulated lids were due to defective vision with accompaying eye strain. Some cases however were due to poor light at home and in the school room. A great many of the cases of defective vision were serious enough to require glasses for correction. Many parents could

not afford suitable glasses for their children, in such cases arrangements were made with an oculist to furnish the glasses at cost, or possibly private charity was sought for the purpose.

In our examination an attempt was made to discriminate between an enlarged and a diseased tonsil. A tonsil may be enlarged and yet not be causing any actual harm. Of course where the tonsils are so enlarged as to obstruct breathing and phonation and produce difficulty in swallowing they should receive surgical attention. Seven hundred and twenty-five, or 30.5 per cent. of the children had enlarged tonsils and three hundred and thirty-two, or 14 per cent. had diseased tonsils. These diseased tonsils were not necessarily enlarged. In a great many instances, however, they contained pus. A tonsil so diseased undoubtedly needs immediate surgical attention.

Four hundred and seventy-eight, or 20 per cent. of those examined had adenoids. This little mass of tissue through pressure upon the opening of the Eustachian tubes in the nasopharynx produces more or less deafness, with consequent inattention. Soon the child is looked upon as backward mentally and his progress in school is greatly retarded. In some of the cases of defective hearing it was undoubtedly due, in a great many instances, to the presence of enlarged adenoids.

One hundred and fifty-six, or 6.5 per cent. of those examined had a chronic pharyngitis. In fact, the large number of children with chronically inflammed throats and tonsils was rather amazing. This condition probably accounts for the occasional sporadic case of Diphtheria that occurs in our city. We have been able to detect six diphtheria carriers, and no doubt the future holds more in store for us.

It is human nature to want to excel in anything we undertake. It is an obligation parents owe their children to keep them physically perfect and allow them to obtain the greatest benefits from their school training in their younger years.

EDUCATION WITHOUT HEALTH IS USELESS.

THE DIAGNOSIS AND TREATMENT OF AMEBIC DYSENTERY.

Mr. President, and Fellow Members of the District Medical Association:

AMEBIC Dysentery presents so many clinical types that the diagnosis is by no means easy, and can only be made absolute by finding the Ameba in the feces, with the aid of a microscope. Dr. L. F. Barker says the diagnosis is easy "If one thinks of the possibility of the diarrhea being due to amebiasis, and examines the stool microscopically for ameba."

One of the objects of this paper is to bring to the attention of the Association this disease, not on account of its being of recent discovery —having been brought to the attention of the medical profession in 1859—but because of its being relegated to that large group of diseases considered rare and consequently, that attention has not been paid to it that its frequency and importance deserves.

I agree with Musgrave that the condition should be more correctly given the name "Intesinal Amebiasis" because there are cases which occur without the clinical symptoms, and others have symptoms that would lead one to suspect "amebiasis" but

present features far from those found in typical dysentery. The diagnosis depending entirely on the finding of the ameba and they are at times hard to find, and with some the microscope is not available. I will call attention to a few symptoms that should make one suspect amebiasis: These symptoms are such that when a patient complains of a certain few this disease should be immediately brought to mind and more attention paid to its elimination before deciding the case is not one of "Amebic Dysentery." If one is more nearly convinced that the disease is one of amebiasis than any other, and the ameba are not found in the stools you will not go wrong in trying the therepeutic test, which in the majority of cases will be as positive in its results as that gotten with quinine in malaria.

The finding of the ameba is accomplished by first giving the patient a saline laxative because a flushing of the bowel causes a larger number of ameba to be present in the stool, the stool is liquid and more easily examined. It should be passed in a warm pan in order to keep the ameba motil, and if possible a warm stage used. In the summer time this is not necessary if the feces are examined at once. One of the best methods is to introduce a rectal tube and examine immediately the mucus and blood that accumulates in its eye. In the liquid stool look for mucus, blood or tissue elements and from this take the smear.

There are several different types of ameba found in the intestinal canal but the Ameba Histolytica is the one responsible for intestinal amebiasis. Ameba are cells usually larger than white blood corpuscles, with strongly refractive proto-plasm. On a warm stage they show lively ameboid movements.

The symptoms above referred to, as being suspicious of amebic dysentery, are of course different in the acute and chronic types. In the acute the symptoms are those of dysentery. It is the chronic type that needs to be differentiated from other troubles.

In this type the infection may be masked and latent and marked pathologic changes may be present without objective clinical symptoms and the early recognition of these irregular types is of great importance, especially when amebic dysentery is endemic. I believe a great many cases diagnosed as a "Simple Catarrhal Colitis" are of this type.

In these latent cases dull aching abdominal pains are present, intestinal indigestion, flatulency, at times the pains are made worse on lying down, early in the morning the patient gets up, dresses and finds relief. Aching over the sacrum is another prominent symptom, and at times a sore spot will be present over the lower end of the sacrum, sometimes on one side and then again on the other. The tongue is coated and constipation is usually found. When a diarrhea sets in the abdominal symptoms, such as flatulency and indigestion, are relieved. Most patients will feel better if their bowels act four or five times a day. Emaciation, as a rule, is not pronounced.

In the mild and moderately severe cases the symptoms are more of a diarrhea than a dysentery. The diarrhea is more pronounced in the morning, the so-called morning diarrhea, the patient having to go to stool before he dresses. The abdominal pain is more severe, a pain around the navel, discribed as a

"cutting" around the navel, tenderness on pressure along the colon, fever may be slight or sub-normal, constipation alternating with diarrhea, later the passing of mucus and blood. In these cases the patient may describe his symptoms as being those of a diarrhea, when in reality he may have to go to stool eight to ten times a day but each time he passes only blood and mucus.

In the acute variety the symptoms of dysentery are plain. The fever, as a rule, is not high, stools may number twenty to thirty a day, consisting mostly of blood, mucus and tissue elements, marked abdominal pain, the cutting around the navel, emaciation more rapid.

In all cases a proctoscopic should be made. The ulcers with undermined edges being found in the more severe type and also in the chronic type in which there is a mixed infection. In the beginning of many cases there may be no ulceration, but minute elevated red dots mark the beginning of ulceration. In one of my cases the only pathology found was several red lines, very superficial, crossing each other as do the silk threads in a paper bill. This patient complained of headache and diarrhea lasting from three to four days, re-occuring about every two or three months. On treatment he gained twenty-five pounds in three months. The proctoscopic examination was made between attacks, just before the treatment was started.

The "Bacillary Dysentery" presents the same symptoms as the amebic form, therefore, if the case does not respond to treatment readily examine for the ameba, or use the therapeutic test.

Amebic Dysentery is known to be fairly common in certain parts of the United States. Dr. P. I. Nixon, of San Antonio, Texas, makes the statement that it is nearly as common as malaria in that locality, and as a matter of fact it is more generally distributed and more frequent than is usually supposed. The treatment of this disease, in the past, has been rather unsatisfactory, but within the last four years a new treatment has been introduced. It is upon this line of treatment that I will call to your attention, and, with one exception it will be noted that the most potent, the most successful, and also the most popular agent is the alkaloid emetin. It is used by physicians in many different ways. A few recommend its use in the form of ipecac; a great many as the alkaloid; a few use the Alcresta Tablets and still others that make the statement that it is impossible to cure a majority of the cases of amebiasis without the combination of emetin and ipecac. In other words, emetin is the active agent whether it be used in the form of ipecac or Alcresta Ipecac.

There are so many different ideas as to how the alkaloid must be administered to get the best results, I am going to describe only one method, which, to my mind, is the most radical therefore, most certain of ridding the bowel of the causative agent of the disease.

The customary procedure is to give one-third of a grain of emetin hypodermically three times a day from four to seven days. Larger doses are very irritating to the skin and the smaller doses repeated often answer every purpose, although too small an amount given may cause the ameba to become immune to the drug. After the administration of the emetin rest the patient for a day then begin powdered ipecac in the form of fresh, enteric-coated pills. Begin with three five-grain pills

three times a day, decreasing one pill a day until the patient is taking one three times a day. Continue this dose from two to four days, unless, in the meantime the patient developes a nocturnal or an ordinary diarrhea. If this condition developes, discontinue the pills for a few days then begin them again with the same dose where you left off. Remember that ipecac, in a great many cases, will cause a diarrhea due to its irritating effect on the intestinal mucosa.

The theory of this method is this: It is believed that on account of the ameba burying themselves in the mucosa of the intestinal wall the emetin reaches them through the blood channel but fails as to the ones upon the surface of the mucosa, therefore, the emetin in the form of ipecac pills is given in order to reach the more superficial. Later Alcresta Ipecac may be given because it does not seem to irritate and can be taken in large doses for some time. While this treatment is being given the feces should be examined frequently in order to note when the ameba disappear. I do not believe in the intravenous method of giving the alkaloid, it being too dangerous in its effect. When given sub-cutaneously it is slowly absorbed and also much easier for both patient and physician. Vedder says after seeing rabbits die, immediately after intra-venous of comparatively small amounts of emetin, I should hesitate before administering, even one grain, intravenously. I do not believe that emetin by mouth is of very much value. The dose is necessarily small and on account of its irritating effect it acts only as a purgative.

Some times a diarrhea persists after the ameba are destroyed, especially in long continued attacks of amebiasis. Due possibly to a mixed infection. In these cases installations of one to four ounces of a ten-percent solution of argyrol, or a two-percent solution of protargol into the sigmoid every other day, alternating with fluid extract of Krameria ten-percent solution, four ounces being instilled into the sigmoid through a rectal tube.

The other amebicide, Chaparro Amargosa, was first brought to the notice of the profession by Dr. P. I. Nixon, of San Antonio, Texas, in a paper printed in the Journal of the American Medical Association in which he gives the credit to Dr. J. W. Nixon, of Texas, at whose suggestion it was used in one of his cases.

In this paper he reported ten cases of undoubted amebic dysentery of from three weeks to four years standing. All ten cases were cured and there has been no recurrence so far as can be determined. The period of freedom from symptoms ranging from ten months to two years. In only one case was a living ameba found in the stools after treatment was begun. These cases averaged less than two days before the stools became normal. There were no liver abcesses or other complications.

I will admit after reading the article I was interested but thought it too good to be true. I immediately tried to buy some of the drug on the open market but it was not even listed by any of the larger drug houses. I then, after being advised by Dr. Nixon, obtained a sack of the bush from a Mr. Davis, in Pleasanton, Texas.

I used this drug in one case in which the patient was suffering from a nocturnal diarrhea due to amebic infection. Much to my surprise in two days the diarrhea was checked. Its effect was really far better than I had expected, even

after having read Dr. Nixon's paper.

"Chaparo Amargosa" is a small thorny bush which is indigenous to Southwest Texas and Northern Mexico, growing on thin, rocky mesquite or post-oak land. It grows to be a bush two or three feet in height. Its size depending on the comparative richness of the soil on which it is found. Its leaves are small, its flowers pink, and very small. The matured fruit is a red berry, which is about the size of a pea.

All parts of the plant, from the root to the berry possess the characteristic bitter taste and medicinal properties. It is in the market as a Fl. Ext., the dose being from 1-3 drams before meals.

I used the drug in the form of the infusion, which is prepared by boiling the plant—roots, branches, foliage and fruit—in water from thirty to sixty minutes. No definite weight can be used, as the weight of the plant will vary with the seasons and with its dryness. The infusion should have the color of moderately weak tea.

DR. NIXON'S ROUTINE TREATMENT, is as follows: The patient is kept in bed, if practicable; the diet is restricted to liquids and semi-solid articles; an ounce of magnesium sulphate is given three or four hours before treatment is begun and repeated every two or three days; six or eight ounces of the infusion are given by mouth half an hour before each meal and at bedtime; rectal enemas of from five hundred to two thousand c. c. s. of the infusion are given in the knee-chest posture twice daily, and the patient is instructed to maintain this position for five or ten minutes, and afterward retain the solution as long as possible. The length of time the fluid will be retained varies with the irritability of the rectum and the persistance of the patient; in some it will be only a few minutes, while others will be able to retain it indefinitely. If the large bowel contains fecal matter it is well to irrigate it with normal saline preliminary to giving the enema. It is advisable to continue the treatment for a week or two after the subsidence of all symptoms.

The infusion, as well as the fluid extract, has an intensely bitter taste, but it is a clean bitter, and no difficulty is experienced by patients in taking it. The bitter taste is easily overcome by eating a piece of bread or drinking a little coffee, if necessary. As a matter of fact, the bitter taste is not undesirable, because of its tonic and stomachic effect. No nausea, or other untoward symptoms have followed the administration of this drug, and so far as is determined, it exerts no detrimental influence on the human organism even in large doses.

The active principle of "Chaparro Amargosa" has not been satisfactorily isolated. Tannin is not responsible for the action of the drug, as the detannated fluid extract is no less potent than the original fluid extract. This drug is not indicated in ordinary diarrhea and is probably without action in other parasitic intestinal infections.

ORAL INFECTIONS.

President and Gentlemen of the South Carolina Medical Association:

I AM delighted to have this opportunity of being with you while it is a great personal pleasure, it is also an official duty, being here as the representative of the South Carolina State Dental Association. Individually my presence is of little im-

portance, but the mere fact that I came representing the dental profession, justifies in itself, the desire and earnest effort of my branch of medicine, to do our part in helping solve the many and obscure questions that are daily arising in our chosen field of science.

At this particular present time perhaps the word dentist suggests more vividly to your minds, the popular and much discussed subject of focal infections, than any other one thing. I shall, therefore, register a few thoughts on the general subject hoping they may be acceptable to you.

We as a profession had been preaching the doctrine of oral infection for years, but it was not until Dr. Mayo took up the banner, that your profession began to sit up and take notice, and now, as was to be expected, the pendulum has swung a little too far in the direction of the oral cavity and its environs, but this present move of enthusiasm is necessary in order to reach a rational and conservative understanding of the processes involved and when it has spent its force, we will all be much wiser and in a position to proceed in a more certain and intelligent manner with our fight against the infections and their sequelae.

Dr. Mayo has said that the next great step in preventative medicine must come from the dental profession. It looks very much at the present time as tho this is true, but as yet unfortunately, the desired goal is not in sight, let us hope that some one will soon stumble over a solution of these our present troubles.

As the matter stands to-day the oral cavity is a constant menace from the cradle to the grave. In childhood, starting with dentition, we find the most profound general systemic disturbances evoked by a retardation of a physiological process. Later on in child life we have a whole catalogue of diseases, finding their inception or entrance in the oral cavity thro the medium of the portals which are almost sure to be present at this period, namely, decayed teeth and gum lesions, not to mention the grave results that oftime follow the retarded bone developments or the absence of proper masticating surface. From adolescense to old age again it is an ever increasing menace and many heart, kidney, joint and other lesions, trace their origin to the oral cavity during this period.

That many of the various forces of infections find their foci in the oral cavity we believe to be true. And the first step in our efforts to control secondary manifestations must be the eradication of mouth infections. It must be recalled tho that the human economy contains organs other than the teeth and tonsils that are capable of producing manifestations just as profound and virulent.

So well known have the teeth and tonsils become, that to-day not only the profession, but the public have taken up the cry, and most any one of your patients can not only diagnose their own case, but will prescribe the treatment, "Pull out the teeth and cut out the tonsil." Unfortunately tho, in a great majority of cases this treatment doesn't seem to work the magic cure that was predicted. Something else seems to be at fault. Then explanations are in order, and a further hunt is started to see what other organs can be sacrificed on the alter of progress.

What most concerns us as dentists is to find or work out some method by which we can with some degree of cer-

tanity so treat pulpless teeth that as the years roll by they will not come under the bane of the Radiographer and the diagnostician. We have not as yet found a method, so many teeth whose only crime is that they look suspicious, must yet awhile be condemned and sacrificed in the interest of science.

With regard to the X ray. I do not believe that many of the dental organs condemned by this method are in reality seats of infection. In order to understand the conditions surrounding a pulpless tooth, it is necessary to understand the influence which caused its being pulpless, and in a majority of cases it will be found that the pulps were surgically removed and during the operation the tissues surrounding the apex of the tooth were injured, not necessarily infected, but injured, thereby causing the pictures to show a rarified area of scar tissue which in most cases is perfectly harmless.

These teeth it must be remembered have usually been treated with arsenic, chloride of zinc, or formal dehyde. Any or all of which cause death to the cellular tissues, and it is only reasonable to think that the very small and indefinable outlined areas so often seen at the apices of devitalized teeth are the old scars from the use of these agents.

It has been my experience, and that of others also that where we find an infection, that is causing secondary manifestations there is not any difficulty in recognizing it in the picture, there are exceptions of course, but the majority I believe show up well defined and unmistakable.

The weakest link in the whole chain is our inability at the present time to trace the infection to its proper source, and until some method is found to discover beyond peradventure which focus or facit are responsible for a given manifestation, we must continue to empirically condemn and uselessly sacrifice many unoffending organs. It has been suggested that perhaps certain forms of organisms exhibit unmistakable selective proclivities. This if true, may help us solve the problem, and we can hope at least that something valuable may develop from it, and that it will not meet the ignominious fate of the late departed emetine theory. And speaking of Emetine, Pyorrhoea is a constant source of concern to both professions. Pyorrhoea, on account of its recent publicity during the emetine campaign, has eradicated every other recognized desire of the gingiva. Stomatitis, pericementitis and gingivitis are all no more, they are all pyorrhoea now adays. Have you noticed that no body ever tells you that they have Riggs Disease, they all have pyorrhoea.

While pyorrhoea is undoubtedly very prevalent, a majority of the conditions so diagnosed are simple cases of gingivitis, of course gingivitis allowed to run its course uninterrupted will develop into pyorrhoea, but if given the proper treatment in its early stages it is readily cured. The same cannot be said of pyorrhoea, for I for one, am still under the impression that pyorrhoea can not be cured. I think it can be controlled, but I have yet to see a case which I recognize as cured.

The presence of the pus cell in the mouth is not necessarily an evidence of pyorrhoea. Some writers go so far as to state that the pus cell is a constant inhabitant of the oral cavity and I must say that I believe, in the vast majority of mouths, at all times the pus cell can be found, whether it is

there to furnish food for our old friend the amoeba, or whether the amoeba is there to feed on it, I don't know, but very constant in the oral secretions. Just exactly what role they play in the pathology of this region is yet to be determined.

What our profession in the future must do is to find the means of eliminating the apical abscess, and controlling the ravages of pyorrhoea. Then it will be up to you to devise a process of tracing a secondary infection to its true source, the time will then have arrived, when if nothing new has come along in the mean time, we will be in a position to be of real service to suffering humanity.

MINUTES

(Continued from June Issue)

THE PRESIDENT: You have heard the report of the committee; what is your pleasure?

DR. HARRY WYMAN: I move that it be accepted, and that the election of the Committeemen be gone into.

Motion carried.

DR. CATHCART: The first would be a scientific committee, to consist of three members, to take charge of the scientific program, who shall be elected by the House of Delegates to serve for one, two or three years, to act with the Secretary.

DR. BRAILSFORD: Mr. President, how have they been appointed previously?

THE PRESIDENT: By the chair, but the suggestion is that they be elected by the House of Delegates.

DR. WYMAN: How was that?

DR. CATHCART: One for one, one for two, and one for three. The election to-day will be for one, two, and three years. Hereafter one man will go off each year.

DR. ROSS: Mr. President, I nominate Dr. Hines for three years.

THE PRESIDENT: Dr. Hines is Secretary and ex-officio member of that committee.

DR. ROSS: I nominate Dr. Cathcart for three years.

Seconded by several.

Moved by Dr. Burdell that the rules be suspended and that Dr. Cathcart be elected for three years.

Motion carried.

DR. KOLLOCK: I nominate Dr. Coward for that committee.

DR. COWARD: I move that for the two-year term that the Secretary of the State Board of Health is two years, and that the Secretary of the Spartanburg Board of Health serve for one year, provided he is a member of the Association.

THE PRESIDENT: Dr. Coward is nominated by Dr. Kollock, and Dr. Kollock nominates Dr. Hayne and the Secretary of the Local Board of Health of Spartanburg, if he is a physician.

Dr. ———— The Secretary of the Spartanburg Board of Health is not a physician, but the President is.

DR. YOUNG: I do not know the personnel of the Board of Health here at all. My idea was that this House of Delegates consider the personnel of the men put on this committee.

DR. LANCASTER: I am satisfied in my mind that the President of this

Board of Health is a competent man. His name is H. R. Black.

DR. COWARD: I withdraw my nominee.

DR. LANCASTER: I nominate Dr. H. R. Black.

Upon motion, nominations closed and Dr. Coward elected for the two-year, and Dr. Black for the one-year term.

DR. CATHCART: As to the standardization of hospitals, that the committee be increased to five and elected from this Association.

THE PRESIDENT: Dr. Robert Wilson, Dr. Hines and Dr. S. C. Baker, I think, are the members.

DR. CATHCART: Then it would be in order to nominate two others on this committee.

DR. ROSS: I nominate Dr. Young of Anderson, and Dr. Brailsford nominates Dr. La Bruce Ward of Columbia.

Moved and seconded by Dr. Ross that nominations be closed and that Doctors Young and Ward be nominated on this committee.

Motion carried.

DR. FRONTISS: I would like to make the motion that sometime this year the roll of membership be published in the Journal.

Motion carried.

THE PRESIDENT: The "Ayes" have it, and the Editor will be instructed to publish the rosta in the Journal, sometime during the coming year.

SIMS MEMORIAL COMMITTEE.

DR. HINES: I think it is Dr. Baker's idea that conditions have been such for the last two or three years that the committee has very little encouragement to push the matter. In other words, the whole thing is in abeyance. That was our conversation this morning, and it seemed to be his opinion, though I am not making the report for him. It looked like something happened, he said, every time.

DR. BOOZER: As Chairman of the Committee on the revision of the Medical Practice Act, I would like to say:

The Committee, after considering this matter carefully as to whether that matter should come up at the last session of the Legislature, decided, after advice from those we knew best, that on account of the fact that it was a new Legislature, with probably thirty old members, it was not wise to bring the matter up at that time. So the thing was held over. Unless, however, something happens in the meantime, the matter will come up at the next Legislature.

In the meantime, however, we would be glad if the members of the Association could see their representatives and get their co-operation when the matter comes before the Legislature. A man at home can do much more with his representative than we down there at the State House, trying to explain the matter to him there; so if there is anything by which this matter could be taken up with the men at home, we would be glad if this could be done.

THE PRESIDENT: Does the House desire to take any action upon the matter.

COMMITTEE ON MEDICAL EDUCATION.

DR. HEYWARD GIBBES: I am sorry to say we have no report to make to the House of Delegates. This Committee was never properly organized, for some reason, and never got down to practical work.

I would like to take this opportunity to suggest to the House of Delegates that the Committee, instead

of consisting of five men, be somewhat enlarged, and the duties to be assigned to this committee be more definitely specified.

I should like to see the Committee organized with the definite purpose of visiting, at least once a year, the College in Charleston, and going over the situation without any official connection with the place, and bringing recommendations to this body as to any changes they see fit. Furthermore, the most far-reaching influence of this Committee is possible in attempting to systematize education in this State, looking to the study of medicine, and at the University of South Carolina I took the matter up with the professors of chemistry, physics, and biology, and looked into the matter of the training of their students. If this committee could be so organized as to be scattered through the State, one member located at the various sites of the seats of learning, they could come into more intimate contact with the professors of the instituiton, and the class can be much more systematized.

I think Spartanburg, Greenville, Due West, Newberry, Rock Hill, Columbia and Charleston could be represented on this Committee, one physician from each of those communities to have the present Chairman appointed, and to do this work from these various centers, with the specified duty of visiting the College in Charleston at least once during the year.

THE PRESIDENT: Will the House take any action upon this?

DR. EDGERTON: I move that the suggestions be accepted and the changes be made.

THE PRESIDENT: It is moved that this committee be increased to eight.

DR. HARRY WYMAN: I amend that by recommending that the chair appoint a member from each one of these seats of learning.

DR. HEYWARD GIBBES: I would suggest that the total number of the Committee be changed to nine, and from those centers I think the committee could handle the situation throughout the State.

THE PRESIDENT: You have heard the motion of Dr. Edgerton.

DR. COWARD: I move to amend that by increasing the Committee to ten, by including Anderson.

Motion seconded and carried.

EDUCATIONAL COMMITTEE.

THE PRESIDENT: On this Committee I appoint from Columbia, Dr. Heyward Gibbes, Newberry, Dr. Elbert Pelham, Charleston, Dr. Robert Wilson, Rock Hill, Dr. Fennell, Due West, Dr. Bell, Clemson, Dr. Redfern, Greenville, L. O. Mauldin, Spartanburg, D. B. Lyles, Anderson, Dr. Ross, Clinton, Dr. Bailey.

REPORT OF THE CHAIRMAN OF THE COUNCIL, DR. S. C. BAKER.

Spartanburg, S. C. April 17, 1917.

To the House of Delegates of the South Carolina Medical Association.

Gentlemen:

The Board of Councillors, to whom the petition submitted by certain members of the Greenville County Medical Society to the House of Delegates was referred, beg to report that it has met and considered the questions involved in said petition.

No names were mentioned in the petition but Drs. J. W. Jervey and J. W. Curry of the Greenville County Medical Society stated that they were the parties alluded to in the petition.

Each party to the controversy

made its showing. Dr. Powe, who represented the Greenville County Society claiming, however, that his society had not been given sufficient time in which to prepare its answer to the appeal.

After carefully considering the matter the council, having first decided that in its opinion the Greenville Society had been given a reasonable opportunity to make its showing, unanimously recommend in view of all the facts presented:

1st. That the formal statement of charges of unethical and unprofessional conduct, as submitted to the Greenville County Medical Society against Drs. J. W. Jervey and J. W. Curry, be printed in the Journal of the South Carolina Medical Association, together with the findings of the Board of Censors of the Greenville Medical Society exonerating Drs. Jervey and Curry from said charges, but that all the evidence adduced at the hearing and all comment upon it as it appeared in the full record of the investigation, be eliminated from the publication.

2nd. That in regard to the last clause of the petition which seeks to restrict the bringing of such charges against a member of a society, we see no practical way of limiting the matter and accordingly have no recommendation to make.

S. C. Baker, M. D.,
Chairman of Council.

DR. GIBBES: Mr. President, I move, Sir, the adoption of the report of the Board of Councillors.

Seconded.

DR. POWE: Mr. President, this petition was brought up over here without the knowledge of the Greenville County Medical Society at all. I knew nothing of it until two days ago. It seems to me it would be pretty insulting to the Greenville County Society to come here and review their action without giving them notice. I think it would be extremely unwise to overrule the Greenville County Medical Society. In case this thing is not hushed up these men will be charged again, and probably with a different outcome. For the sake of peace and harmony I hope that this will be allowed to develop right here.

The President of the Greenville County Medical Society is in the hall and I would suggest that we hear from him.

DR. COWARD: Mr. President, I think that none of us wish to have this thing threshed out any farther. Personally I have too warm a regard for all these men. We agreed this morning to refer the matter to the council. That has been done. We are not here to try this case, so far as I can see.

THE PRESIDENT: THE motion is to adopt the report of the council.

DR. LANCASTER: Question.

THE PRESIDENT: Are you ready for the question?

The motion is for the adoption of the report of the Council. All in favor of it say "Aye;" opposed, "No."

The report is adopted.

We are under the head of Miscellaneous Business. Is there any further miscellaneous business to come before this Society?

There being no further business, the motion to adjourn is in order.

Motion made, seconded and carried.

HEREDITY AND CONTAGION IN CANCER.

To Health Editors and Special Writers:

Your attention is directed to an important statistical study of the

above subject, the results of which have recently been announced by Mr. Arthur Hunter, President of the Association of Life Insurance Presidents, as per inclosed abstract.

Perhaps no aspect of the cancer problem causes such wide-spread apprehension as the possibility of its being inherited. Broadly speaking such fears are probably groundless. When the disease occurs repeatedly in the same family there is a tendency to assume that it is inherited. This reasoning is of course superficial. Newsholme, Bashford and many other authorities have frequently pointed out that cancer is such a common disease among adults that by the laws of chance alone many cases are likely to occur in some families. It should be remembered that among people over forty years of age in this country cancer causes the death of one woman out of every eight and one man out of every fourteen. It is obvious that repeated instances must occur in some families and this of itself does not prove that cancer is hereditary.

Important laboratory studies tend to prove the hereditary transmission of a liability to cancer among mice, but many leading authorities believe that we are not yet justified in applying these deductions to the human subject. Previous statistical investigation among human beings has failed to establish the inheritance of cancer and Mr. Hunter's study merely adds to the mass of evidence against heredity as a causative factor. In passing upon applications, insurance companies generally regard the history of cancer in the family as of little significance.

While the question of heredity cannot be viewed as absolutely settled, nevertheless the Publication Committee of this Society believes that the practical bearings of competent investigations of the human material should be brought home to newspaper readers in an effort to reduce the present excessive apprehension among the people regarding the possibility of inheriting cancer.

With regard to contagion we are on even fimer ground and the question may be regarded as settled. After countless operations there is no case recorded in which a surgeon or nurse has acquired cancer from the treatment or attendance upon any patient suffering from this disease. The public should be taught that the fear of infection is groundless since apprehension on this score has undoubtedly tended in many cases to prevent the most humane care of sufferers from a disease which, especially in its advanced stages, demands the utmost resources of patient and merciful ministration on the part of relatives and nurses.

Mr. Hunter's address has already been referred to in the news columns of many papers, but we trust that if you have not already done so you will make it the subject of editorial comment. For your convenience this connection an abstract of the paper is inclosed. The full address can be obtained on application to Mr. George T. Wight, Secretary of the Association of Life Insurance Presidents, 165 Broadway, or to the author, Mr. Arthur Hunter, New York Life Insurance Company, 346 Broadway, New York City.

On behalf of the Publication Committee, I am

Yours very truly,

Curtis E. Lakeman,
Executive Secretary.

Anderson, S. C., Jan. 10th, 1917.

Dr. E. A. Hines, Secty-Treas., South Carolina Medical Association, Seneca, South Carolina.

Dear Sir:

In accordance with your instructions, I have audited the books and accounts of the South Carolina Medical Association and attach hereto statement, made in the form of your Annual Report to the Association, which exhibits the Receipts and Disbursements (including overdraft at bank Jan. 1st, 1916) for the year ending December 31st, 1916, also a Statement of the Assets of the Association, there being no Liabilities.

I hereby certify that this Report is correct as shown by your books at the date above mentioned.

Respectfully,

C. C. Dargan,
Public Accountant.

SOCIETY REPORTS

PICKENS COUNTY MEDICAL SOCIETY

Central, South Carolina.

July fourth, Nineteen Hundred and Seventeen.

By Special Invitation

Ten A. M., to Five P. M.

PROGRAM

10:00—11:00 A. M.

"Renal Infections and Treatment."

Dr. C. F. Ross, Anderson, S. C.

11:00—12:00 M.

"Gall Bladder Infections and Treatment."

Dr. J. C. Harris, Anderson, S. C.

12:00 M.—1:00 P. M.

"An Actual Tonsillectomy Performed in the Presence of the Society.

Dr. W. H. Nardin, Anderson, S. C.

1:00—2:00 P. M.

An "Old Fashioned Basket Picnic Dinner," served by the Ladies of Central. Say, "Doe!" You will enjoy this. After dinner toasts and speeches. "Free for all."

2:00—3:00 P. M.

"A Plea for the Child Welfare Work in Time of War."

Dr. E. A. Hines, Seneca, S. C.

3:00—4:00 P. M.

A general discussion on the Prevention, Diagnosis and Treatment of Typhoid Fever.—Opened by Dr. Frank Lander, Williamston, S. C.

4:00—5:00 P. M.

A lecture on the purposes and work of the Red Cross Society in the presen War—Opened by Dr. W. H. Nardin, Anderson, S. C.

Discussion by U. S. Medical Officers, and Members Present.

L. G. Clayton,
W. A. Woodruff,
J. D. Bearden,
Committee.

PROGRAM

FIFTH DISTRICT MEDICAL SOCIETY

Of South Carolina July 11, '17.

10:30 A. M., Masonic Hall.

1—Address of Welcome in Behalf of the City of Chester—Hon. Z. V. Davidson, Mayor.

2—Address of Welcome in Behalf of the Chester Chamber of Commerce—Mr. R. B. Caldwell, President.

3—What is being done at the State Hospital for the Insane and the Treatment and Care of the

patients—Dr. C. F. Williams, Columbia, S. C., Superintendent.

4—Frequency of Urination in Women—Dr. R. H. Lafferty, Charlotte, N. C.

5—Advertising Public Health—Dr. L. A. Riser, Columbia, S. C., Director of Rural Sanitation.

6—Removal of Tonsils and Adenoids by the General Surgeon—Dr. R. T. Ferguson, Gaffney, S. C.

7—Urinary Lithiasis-Diagnosis and Treatment—Dr. N. Bruce Edgerton, Columbia, S. C.

8—Subject Unannounced—Dr. W. C. Twitty, Rock Hill, S. C.

9—Whom should we seek to bring in the Medical Association and Why?—Dr. E. W. Pressley, Clover, S. C.

3:30 P. M.

Dinner at one of the local hotels. The society will be the guests of the Chester County Medical Society.

ENTERTAINMENT COMMITTEE.

Dr. W. M. Love Dr. W. R. Wallace
Dr. S. W. Pryor

PROGRAM GREENVILLE COUNTY MEDICAL SOCIETY

JULY 2, 1917

Dr. George T. Tyler—Exopthalmic Goiter

Dr. J. A. Thomson—Diagnosis and Treatment Typhoid Fever

AUGUST 6, 1917

Dr. R. E. Houston, Differential Diagnois and Treatment Different forms of Dysentery.

SEPTEMBER 3, 1917

Dr. W. B. Sparkman—Ectopic Pregnancy Diagnosis and Treatment.

OCTOBER 1, 1917

Dr. E. W. Carpenter—Common Colds.

NOVEMBER 5, 1917

Dr. T. G. Sharpe—Diagnosis, Prognosis and Treatment Posterior Urethritis.

Dr. W. M. Burnett—Cause and Treatment Postpartum Hemorrhage.

DECEMBER 3, 1917

Dr. Alva S. Pack—Diagnosis and Surgical Treatment Empyema.

Election of Officers.

Each man shall select and notify two men to discuss his paper.

John W. Parker, Secretary.

BOOK REVIEW

IMPOTENCY, STERILITY, AND ARTIFICIAL IMPREGNATION.—By Frank, P. Davis, Ph. B. M. D. Fellow American Medical Association; Ex-Secretary Oklahoma State Board of Medical Examiners; Former Superintendent Oklahoma State Institution for Feeble-Minded; Author of "How to Collect a Doctor Bill," "The Doctor: His Book of Poems," "The Physician's Vest-Pocket Reference Book," etc.; Formerly Editor and Publisher, Davis' Magazine of Medicine.

ST. LOUIS C. V. MOSBY COMPANY 1917.

ACUTE POLIOMYELITIS.—By George Draper, M. D. Associate in Medicine College of Physicians and Surgeons, Columbia University; Associate Attending Physician Presbyterian Hospital New York City. With a foreword by Simon Flexner. With Nineteen Illustrations. Philadelphia, P. Blackiston's Son & Co., 1012 Walnut Street. Price $1.50.

AMERICAN ASSOCIATION FOR STUDY AND PREVENTION OF INFANT MORTALITY.—Transactions of the Seventh Annual Meeting Milwaukee, October 19-21, 1916. Headquarters of the Association Medical and Chirurgical Faculty Building 1211 Cathedral Street, Baltimore, Md. Press of Franklin Printing Company, Baltimore, 1917.

One of the worlds most important organizations representing Child Welfare Work is the American Association, for the Study and Prevention of Infant Mortality with headquarters in Baltimore, is before us for review. This represents the transactions of the last meeting at Milwaukee in 1916. One of the notable papers is by Dr. Grace L. Meigs of the Children's Bureau, U. S. Department of Labor, Washington, D. C., on the subject of Rural Obstetrics. We note that Dr. Meigs gives an illustration from the South, especially among the colored population. Dr. Meigs says that great progress has been made along the line of rural nursing and that in this country a considerable number of nurses are employed whose salary and expenses are paid by the Board of Supervisors, that many State Legislatures have passed laws permitting the employment of nurses by such boards; that many public health nursing organizations are doing rural work, and that some work is done also by the Red Cross. Dr. Meigs urges Hospital care for complicated cases in every county and admits that the care of normal cases in many rural districts is a most difficult problem to solve satisfactorily.

Another timely paper is on the Problems of the Rural Mother in feeding infants, by Dr. DeVilbiss, Division of Child Hygiene, State Department of Health, Topeka, Kansas.

A number of excellent papers were read on the subject of Infantile Paralysis.

In looking over the list of members of this great Association we found only two from South Carolina, in fact comparatively few from the Southern States. Yet the problem of Infant Mortality is of urgent importance in this section of the country.

THE MEDICAL CLINICS OF CHICAGO.—Volume II Number VI (May 1917). Octavo of 252 pages 46 illustrations. Philadelphia and London: W. B. Saunders Company, 1917. Published Bi-Monthly. Price per year: Paper, $8.00; Cloth, $12.00. W. B. Saunders Company, Philadelphia, London.

Among the articles in this issue we note the following:

Clinic of Dr. Frederick Tice, Cook County Hospital, Anaphylaxis, page 863.

Clinic of Dr. Isaac A. Abt. Michael Reese Hospital (Sarah Morris Memorial Hospital for Children) Pyelitis 895.

Clinic of Dr. Charles Spencer Williamson, Cook County Hospital.

Three Cases of Pericarditis page 907.

Case I. Purulent Pericarditis (Pyopericardium), with a Discussion of Pericardotomy by Dr. Kellogg Speed, page 907.

Case II. Hemorrhagic Pericarditis, with Acute Septic Endocarditis.

Case III. Serafibrimous Pericarditis page 927.

Clinic of Dr. Herman L. Kretchmer, Presbyterian Hospital. Fulguration Treatment of Bladder Papillomata page 941.

Clinic of Dr. Ralph C. Hamill, Northwestern University Medical School Paralysis Agitans page 949.

Clinic of Dr. Arthur F. Beifeld, Cook County Hospital Chlorosis Controbution by H. H. Schuhmann, M. D. D. S., Chicago. The Relationship of Oral Foci of Infection of Systemic Diseases page 991.

Clinic of Dr. Solomon Strouse, Michael Reese Hospital Inanition in the Treatment of Diabetes Mellitus page 999.

Clinic of Dr. Charles Louis Mix, Mercy Hospital, Bacillus Aerogenes Capsulatus Infection of the Intestines page 1007. Aneurysm of the Aorta page 1017.

Clinic of Dr. Frank Wright, Northwestern University Medical School Two-Hour Renal Test page 1030.

Clinic of Dr. Frank Smithies, Augustana Hospital Retroperitonel Sarcoma page 1037.

Clinic of Dr. B. C. Corbus, Central Free Dispensary, Rush Medical College. The Treatment of Specific (Gonorrheal) Urethritis. Anterior and Posterior, page 1057.

Clinic of Dr. Joseph C. Friedman, Michael Reese Hospital. The Diagnosis and Treatment of Chronic Constipation page 1071.

INTERNATIONAL CLINICS.—A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynaecology, Orthopaedics, Pathology, Dermathology, Ophthalmology, Otlogy, Rhinology, Laryngology, Hygiene, and other Topics of interest to Students and Practitioners. By Leading Members of the Medical Profession Throughout the World. Edited by H. R. M. Landis, M. D., Philadelphia, U. S. A. With the collaboration of Chas. H. Mayom, M. D., Rochester. Sir Wm. Osler, Bart., M. D., F. R. S. Oxford. Rupert Blue, M. D., D. P. H. Washington, D. C. Frank Billings, M. D. Chicago. John G. Clark, M. D. Philadelphia. A. McPhedran, M. D., Toronto. James J. Walsh, M. D., New York. J. W. Ballantine, M. D., Edinburg. Charles Greene Cumston, M. D., Geneva. Arthur F. Beifeld, M. D., Chicago. Richard Kretz, M. D., Vienna. With correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels, and Geneva. Volume II. Twenty-Seventh Series, 1917. Philadelphia and London. J. B. Lippincott Company. Price $2.00.

In this issue quite a number of stenographic reports of Clinics held in various prominent hospitals have been given, Johns Hopkins, University of Pennsylvania, Harvard Medical School, Wills Eye Hospital Philadelphia, and in addition a resume of the literature as usual.

THE PRACTICAL MEDICINE SERIES.—Comprising ten volumes on the year's progress in medicine and surgery. Under the general editorial charge of Charles L. Nix, A. M., M. D., Professor of Physical Diagnosis in the Northwestern University Medical School. Volume II. General Surgery. Edited by Albert J. Ochsner, M. D., F. R. M. S., LL. D., F. A. C. S. Surgeon-in -Chief Augustana and St. Mary's of Nazareth Hospital; Professor of Surgery in the Medical Department of the State University of Illinois. Series 1917. Chicago. The Year Book Publishers, 608 S. Dearborn Street.

The great work of editing the Surgery Volume of the Practical Medicine Series has been in the hands of that master surgeon, John B. Murphy for many years and since his death his mantle has fallen upon Dr. Albert J. Ochsner, indeed a worthy successor to one of the worlds most brilliant writers. In the volume before us the present Editor-in-Chief has paid a worthy tribute to Dr. Murphy, his predecessor. Much attention has been paid to anesthesia in the opening chapters. Military Surgery has been given a prominent place.

ABSTRACTS

The following are abstracts of articles in the issue of The Journal, May 12, 1917:

NATURAL FOODSTUFFS.

The supplementary dietary relationship among our natural foodstuffs has been studied by E. V. McCollum, Madison, Wis. (Journal A. M. A., May 12, 1917), who says in order to illustrate these, it is necessary to show evidence that we are able to devise experimental procedure adequate to reveal such relationships, also that we have now sufficiently complete knowledge of the essential factors needed in making a diet for the growing animal to enable us to interpret correctly the results of feeding experiments. To meet these requirements, he reviews the work that has been done in this line in the last eight or ten years, pointing out the difficulties of the subject. One difficulty was cleared up, he says, by the observation of Miss Davis and himself that when liquids of suitable character were present in the food mixture, they secured growth when 20 per cent of the diet consisted of nearly nitrogen free lactose, but were unable to do so when the latter was replaced by starch. Obviously an impurity in the lactose furnished a second unknown dietary factor without which growth could not proceed. That led Miss Davis and himself in 1915 to offer the working hypothesis

that an adequate diet during growth must furnish, in addition to the well recognized constituents of the diet—protein, carbohydrate, fats and inorganic constituents of adequate character and amounts—two as yet unidentified dietary factors. One is soluble in water and alcohol and apparently never associated with the lipoids, when these are isolated from the natural foodstuffs; the other is soluble in fats. The latter is extracted from milk, egg yolk, kidney and probably other animal tissues by ether, but is not removed by this solvent from either the seeds or the leaves of the plants. The former is universally present in foodstuffs of vegetable and animal origin, but is absent or nearly so from crystalline sugar, starch and fats, and is present in but small amount in polished rice and probably in those foods derived from the endosperm of seeds by milling processes. Where the reaction of the medium is alkaline, strong heating of foods probably leads to its destruction. Employing this working hypothesis, they have examined the dietary deficiencies of several of the more important natural foodstuffs. Feeding young animals, for example, with maize, they cease to grow and succumb usually in two months. They added various substances like butter fat to furnish the unidentified dietary factor aid; in another group, maize plus a liberal amount of casein; in still another, maize plus a salt mixture. Maize contains a liberal portion of the water soluble. In all cases, the results was substantially the same. These and similar experiments are illustrated by charts and the effects on rats are noted and discussed in the text. They have also carried out a series of experiments to show the minimum amount of several seeds necessary to supply enough water-soluble dietary essential for full development, which are also discussed. Lastly, McCollum discusses the causes of scurvy and beriberi which he considers the results of unsatisfactory adjustments among the well recognized constituents of the diet, rather than to the lack of specific chemical substances. The paper attempts to show, as far as can be done by experiment, the specific dietary properties of natural food and how they may be advantageously combined, also recognizing the difficulties and the need of still greater knowledge of the subject. A varied diet makes for safety but does not insure it, and it remains to be seen whether the results in animals are applicable to human beings. The inadequate diets of man are generally defective to some degree with respect to two or three dietary factors at the same time, and with the increasing dependence on diets of food and manufactured products derived from them, it is probable that the difficulties will increase. The time doubtless will be possible to plan a variety of human dietaries, but only a very general statement as to the safest policy is possible at the present time. "A diet in which the seeds of plants form the principal part will be made more safe by the judicious use of milk and of the leaves and probably also of the tubers of plants. These have peculiar dietary properties which the best chemical talent of today fails to recognize, but which are readily demonstrable by biologic tests."

DUODENAL INFUSION

G. L. McWhorter, Minneapolis (Journal A. M. A., May 12, 1917), reviews the literature of duodenal infusion and says that it has con-

vinced him that the use of the duodenal tube for this purpose in postoperative treatment is a new procedure. The use of the biliary route to the duodenum in cases in which a fistula would ordinarily be made, for the treatment of some pathologic condition of that tract would not increase the dangers of infection, of permanent fistula or of shock from prolonging the operation, but biliary fistula made for duodenal infusion especially in addition to some other operation would decidedly increase the dangers as compared with the use of a method as simple as the passage of a duodenal tube by mouth. This has been used heretofore in medical cases, but the proposal made by McWhorter of using it as a postoperative procedure, or even earlier, he thinks, has its advantages. The tube is of value as soon as it is in the stomach, since the stomach may first be washed to prevent postanesthetic vomiting. The slow infusion avoids irritation due to swallowing, and it may also be used for gavage. It also has the advantage of relaxing the pylorus. McWhorter has been able to demonstrate that the pylorus is patent soon after operations on the intestine. The small soft tube may be passed into the stomach at the time of operation and its introduction may be effected by first passing the tube inside of a stomach tube, then withdrawing the latter. He sums up its advantages as follows: "Infusion through the permanent tube by mouth is desirable in the treatment of postoperative cases, with early nourishment and medication, since it may be instituted at any time without adding to the dangers of operation. In dehydration, acidosis, ileus and especially in the persistent vomiting following gastro-intestinal operations, this method has proved of definite value."

ANESTHESIA ACIDOSIS

The increasing use of chemical methods in surgery as well as in clinical medicine is noticed by W. H. Morriss, New Haven, Conn. (Journal A. M. A., May 12, 1917), who specially notices the determination of the acid base equilibrium the maintenance of which is mainly through the elimination of carbon dioxide by the lungs, the excretion of acid salts by the kidneys and sweat glands, the presence of "buffer" substances in the blood including the bicarbonates, phosphates and probably proteins, and the production of ammonia at the expense of urea. The lungs take a leading part in this regulation. The carbon dioxid which the lungs excrete has acid properties but when in the blood it is neutralized by the excess of alkali, the so-called alkali reserve, which can be estimated indirectly by several methods. An undue collection of acid products in the body is harmful, unless this mechanism acts effectively. The most familiar example of acidosis is that attended with the excretion of acetone and diacetic acid in the urine, with a fruity odor to the breath, and hyperpnea, vomiting and prostration. This type of acidosis is defined more specifically as a ketosis. The specific nature of the toxic substance involved, however, has not been yet recognized in every kind of acidosis. Acidosis has been recognized in the vomiting and diarrhea of infants and children, and the findings indicate a tendency to lessened alkalinity in the blood and tissues. It has been supposed that anesthesia frequently induced an acidosis since acetone was

demonstrable in the urine of patients suffering from persistent postoperative vomiting. Bradner and Reimann reported acetonuria in 61.7 per cent. of postoperative cases. Crile and his associates have emphasized the value of studying a respiratory change, and recommended the examination before giving the anesthetic and have demonstrated a diminution in the alkali reserve in these cases which Morriss' observations confirm. He describes his own method as follows: "A specimen of blood was obtained several hours before operation and another directly after it ended. The blood was collected under liquid petrolatum in small centrifuge tubes containing a few crystals of potassium oxalate. It was centrifugalized immediately, and the plasma drawn off with a pipet. Usually, the analysis was completed at once; but if not, the specimen of plasma was kept on ice in a paraffin-lined tube. The analysis followed the Van Slyke technic and was carried out with the apparatus he described. The plasma was first brought into equilibrium with alveolar air. This was done by blowing through a wash bottle filled with glass beads which removed the moisture; thence the air was conducted into a separating funnel containing the plasma for analysis. The composition of the air thus employed was frequently tested by a simple apparatus for the analysis of alveolar air and blood gas devised by Yandell Henderson, a description of which he will soon publish. It was found that the amount of carbon dioxid in the air used to saturate the plasma varied but slightly, namely, between 5.5 and 6 per cent. After the plasma had been brought into equilibrium with alveolar air, it was introduced in the van Slyke appartus; there, after the addition of acid, the carbon dioxid was liberated by means of a vacuum and measured. The figures in the tables are so calculated as to give the volume of carbon dioxid (reduced to 0 C. and 760 mm.) which 100 c.c. of plasma are capable of binding at 20 C." Observations on the carbon dioxid combining power of the drug before and after various operations and the alkali reserve of the blood under the same conditions are reported in tabulated form and the results discussed. The results of animal experimentations on dogs are also reported and the results of treatment in human cases. His conclusions are stated as follows: 1. The capacity of the plasma for combining with carbon dioxid is decreased after ether and chloroform anesthesia; in other words, one influence of the anesthetic is toward depletion of the alkali reserve. 2. During the first half hour of anesthesia, this factor of safety is notably modified, and the drop is more profound in the case of chloroform than of ether. 3. The initial drop in the alkali reserve is followed by a rebound; from that level there is a gradual decrease until the conclusion of anesthesia. 4. Preliminary administration of sodium bicarbonate increases the alkali reserve, though the most noteworthy effect of this treatment is to lead to higher values for this factor of safety at the conclusion of the anesthetic. 5. The administration of this drug before operation is a rational precautionary measure against postoperative vomiting."

MEDICAL RESEARCH

F. S. Lee, New York, R. M. Pearce, Philadelphia, and W. B. Cannon, Boston, publish their report of the Committee on Medical Research of the Association of American Medical Colleges in the Journal A. M. M. April 14, 1917. The report opens with a statement of the change in medical opinion as regards medicine as a science rather than an art and this raises the general question of medical research in its relation to medical schools. They first analyze the conception of research. In science the man who is satisfied with present knowledge they call the static man while his opposite, the investigator, is never satisfied with present requirements and his aspirations do not end in mere dreaming. The spirit of research fully developed in the individual has a broader outlook and desires a still broader one. Whether a physician shall become a static or dynamic man of science depends largely on the way in which in his student days he has been taught. The responsibility of the instructor is therefore great. The greater volume of original contributions has been made under the influence of the higher educational institutions. This was less appreciated in former years but lately there has been a great change of view. The home of the medical schools will in the future, the committee thinks, be in universities. The question is raised, however, whether they will be the chief seats of medical advance and compete with the special research foundations now coming into existence. They enumerate twenty-six such foundations engaged primarily in medical research, but point out the fact that two-thirds of these exist in universities or are in direct connection with them. There are many advantages in universities for scuh foundations and especially important are the facilities for starting investigators. There is every reason, therefore, to believe that the medical schools will continue to be the chief promoters of medical advance. There may be still some holding the view that the medical school should be merely a teaching institution, but as such they cannot keep pace with progress, and research encouragement is its duty. The teaching staff must perform both teaching and investigating functions and in the better medical schools of the present time this is the case. Most of the faculty are also engaged partly in teaching, but a few have purely research positions. There are also postgraduate students and others who are primarily practitioners in medicine but who give a portion of their time to investigative work. Undergraduate students are often found who are impelled by one motive or another to investigate the minor problems of interest to them. Honor is due to those practitioners outside who do not allow their ambitions to be quenched by the demands of routine practice, and these are constantly contributing to medical literature. These, however, with increasing facilities and demands seek the university laboratories and hospitals more and more, and such should always be open to capable men. With the raising of standards, it has come about that research is expected more and more of the members of the academic staff. It should be clearly understood that no holder of such a position has performed his full duty to his school unless he investigates; this is as true of the clinical as of the preclinical studies. The great obstacle to reaching the ideal

in this regard is that there are two types of individuals of which there are too many in the medical faculties. One of these is the materially successful practitioner who allows his practice to be the first consideration; the other is the subordinate instructor struggling to acquire a practice, and who holds his scohol position for its salary or for the material benefits which he thinks it may bring him. How far it is advisable for medical schools to establish separate chairs and departments for research only, may be asked. So far as they supplement the work in co-operation with other research activities of the school they are to be welcomed, but not if they monopolize the research spirit and afford excuses for others to refrain from scientific research. Investigation by undergraduates has been encouraged in the past more in Germany than elsewhere, and appreciable contributions to human knowledge have been thus made and the committee favors the encouragement of a research spirit in the medical student. It means more for medical progress and for the benefit of mankind. We find here, they say, that medical schools in America vary largely in this respect, and five years ago only a small percentage actually favored undergraduate research. Though a distinct change has probably occurred since that time, they believe the percentage will still be found small. There is no question, however, that the undergraduate should have opportunities to investigate and that the spirit of research should permeate all medical teaching. It should be kept before the student as his ideal and he should have a wholesome hesitation to accept authority blindly and should be taught to seek the conditions of discovery, so that he will not only keep up with medical progress as a follower, but aid it personally. The objection will be raised that with the overcrowded curriculum there is no time for the student to go outside of his routine studies. The present four years curriculum, they say, should be critically and partially re-examined with a view to the judicious omission of unnecessary matter. There should be no attempt to graduate specialists. Such must acquire their special training in their postgraduate years and they see a danger that the fifth year, which appears now a practical certainty, will fall into routine methods of instruction, but if the curriculum is organized in a rational manner, many of the undergraduates will be able to test their powers as investigators. We have not yet come to realize how great a part the medical school can play in the progress of medical science.

TUBERCULOSIS

N. B. Burns, North Wilmington, Mass., and F. H. Slack, Philip Casleman and Karl Bailey, Boston (Journal A. M. A., May 2, 1917)), have experimented with the application of the complement-fixation test to the diagnosis of tuberculosis. They speak of the results of different workers and the variations that are seen in regard to the estimated value of this test for which Miller and Zinsser of New York claim an accuracy of nearly 100 per cent., using an antigen made up of ground tubercle bacilli in physiologic chlorid of sodium solution which is thus prepared and used: Twenty mg. of the moist tubercle bacillus mass are weighed out, placed in a conical 15 c.c. centrifuge tube, and to it are added 90 mg. of table salt. With a

glass rod, filed to roughness at the end, this paste is ground by hand for about one hour. Distilled water is then added to isotonicity, that is, 10 c.c. to the quantities described above. This is the antigen. Just before using, it is shaken up and the heavier particles are allowed to settle in the course of a few minutes. Except for the removal of these larger elements, the suspension is used as a whole without centrifugation and without filtration. It seemed to them that it would be of interest and value to retest the Miller antigen and with this in some cases Petroff's antigens 1, 2 and 3 which, however, did not give as good results as Miller's antigen. Two series of experiments were made with the Miller antigen, first of specimens of patients with known tuberculosis so as to familiarize the laboratory men with the expected reactions while the second series was to consist of specimens of all grades of the disease from nontuberculous, and from doubtful cases. The last class will provide some indication as to the test for specificity. The blood specimens were taken from patients and employees at the North Reading State Sanatorium. There were seventy-seven known tuberculous patients and the results in the far and moderately advanced are given in tabulated form. The far advanced gave on an average the weakest reaction, while the advanced cases gave a much larger proportion and over one half of the still earlier cases gave a strongly positive record. The evidence seems to favor the belief that the amount of complement-fixing bodies in the blood may measure the patient's resistance against the disease. In a second table, the relation of results to the clinical condition in the seventy-seven cases is also given and analyzed. In the second group of specimens, of all grades of tuberculosis including normal patients, seventy-eight in number, there were three out of nineteen designated as probably nontuberculous and gave a strong reaction and they assume that they may have active lesions not shown by the physical examination. Since the Wassermann test is a routine method in the Boston Health Department Laboratory, it was decided to test all serums submitted for this specific test with the tubercle bacillus antigen. "In this way some light might be thrown on the matter of cross-fixation. A total of 912 such tests was made. Of these 221 were positive and 691 were negative for the Wassermann reaction. Of the 221 positive Wassermann tests, complement fixation for tuberculosis gave 21 positive, 13 moderately positive, 16 delayed negative, and 171 straight negative. Of the 691 negative Wassermann tests, 55 reacted positively for tuberculosis, 35 moderately positive. There were 21 delayed negative and 580 negative reactions. We were unable to obtain clinical histories in many of these cases to confirm the specificity of the tuberculosis reactions; but the evidence seems conclusive that there is no cross-fixation with syphilitic serums." The authors conclude that it appears that the test is pecific for tuberculosis but perhaps the number of tests of nontuberculous cases is too few for a definite statement. It is not to be expected that it will replace the ordinary examination of the sputum, but they believe that it will prove of great value as an aid to diagnosis in cases showing congestive physical signs when there is no positive demonstration of tubercle bacilli in

the sputum. The positive complement-fixation test would be strong evidence, but while a single negative would be inconclusive, several would indicate that active tuberculosis was not present. It will also be useful, they say, to determine whether a clinically arrested case has still an active focus existing.

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